

# INTERNATIONAL SEARCH REPORT

International Application No  
PCT/IB2004/050810

**A. CLASSIFICATION OF SUBJECT MATTER**  
IPC 7 H04L27/26 H04L25/02

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)  
IPC 7 H04L

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ, INSPEC, COMPENDEX, IBM-TDB

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 03/028270 A (ATHEROS COMM INC) 3 April 2003 (2003-04-03) page 5, paragraph 2 page 15, paragraph 3 - page 16, paragraph 3	1-10
X	US 2002/159533 A1 (CRAWFORD JAMES A) 31 October 2002 (2002-10-31) claim 1 figure 2 paragraph '0086!	1-10
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☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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- \*A\* document defining the general state of the art which is not considered to be of particular relevance
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Date of the actual completion of the international search

17 September 2004

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## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	PATENT ABSTRACTS OF JAPAN vol. 2000, no. 13, 5 February 2001 (2001-02-05) & JP 2000 286819 A (NEC CORP; NIPPON TELEGR & TELEPH CORP <NTT>), 13 October 2000 (2000-10-13) abstract	1-5,7-10
P,X	----- EP 1 349 337 A (TOKYO SHIBAURA ELECTRIC CO) 1 October 2003 (2003-10-01) paragraph '0043! - paragraph '0051! paragraph '0025! paragraph '0027! paragraph '0029! paragraph '0032! - paragraph '0039! -----	1-10
A	US 6 317 473 B1 (GUYOT JEAN-MARC ET AL) 13 November 2001 (2001-11-13) column 2, line 48 - line 58 column 6, line 12 - column 7, line 67 column 9, line 21 - line 67 -----	1-10

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/IB2004/050810

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
WO 03028270	A	03-04-2003	US 2003152021 A1 US 2003058966 A1 WO 03028270 A1	14-08-2003 27-03-2003 03-04-2003
US 2002159533	A1	31-10-2002	US 2002150168 A1 TW 545008 B WO 02069515 A1 US 2004114675 A1 US 2002176483 A1	17-10-2002 01-08-2003 06-09-2002 17-06-2004 28-11-2002
JP 2000286819	A	13-10-2000	NONE	
EP 1349337	A	01-10-2003	JP 3538187 B2 JP 2003283454 A CN 1447544 A EP 1349337 A2 US 2003185147 A1	14-06-2004 03-10-2003 08-10-2003 01-10-2003 02-10-2003
US 6317473	B1	13-11-2001	EP 1267538 A1 EP 1267539 A1 EP 0877526 A2 EP 0876031 A2 GB 2361157 A ,B GB 2325125 A ,B GB 2325126 A ,B GB 2325127 A ,B GB 2325128 A ,B GB 2325129 A ,B GB 2325825 A ,B GB 2326069 A ,B GB 2326070 A ,B US 6320915 B1 US 6320917 B1 US 6205188 B1 US 6240146 B1 US 6137847 A US 6130922 A US 6320627 B1 US 6628730 B1	18-12-2002 18-12-2002 11-11-1998 04-11-1998 10-10-2001 11-11-1998 11-11-1998 11-11-1998 11-11-1998 11-11-1998 02-12-1998 09-12-1998 09-12-1998 20-11-2001 20-11-2001 20-03-2001 29-05-2001 24-10-2000 10-10-2000 20-11-2001 30-09-2003